

§ 102(b) as anticipated by Muller. Claims 3 and 6 were rejected under 35 U.S.C. § 102(b) as anticipated by Schwartz '834. Claims 4 and 5 were rejected under 35 U.S.C. § 103 as obvious from the French '042 document, Palazzotto et al, or Muller et al. in view of Schwartz '834. Claim 7 was rejected under 35 U.S.C. § 103 as obvious from Schwartz '834 in view of Palazzotto et al.

Claims 1 and 2 were provisionally rejected for double-patenting based upon copending Application No. 09/930,953. In view of the fact that no Office Action has been received in that application, and no claims have yet been found allowable in this application, that rejection need not be addressed at this time.

As shown above, Claims 1-6 have been amended to recite Applicant's invention even more clearly. Applicant submits that amended independent Claims 1, 3, 4, 5 and 6 are patentable over the cited references for at least the following reasons.

Claim 1 is directed to a filter platform for allowing attachment of a plurality of air filter units thereto. The filter platform comprises: a substantially hollow outer housing, the housing forming a chamber within the platform, the housing having a first opening for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and one or more second openings for engaging the platform with the plurality of air filter units so as to allow filtered air to flow into the chamber. The platform further comprises a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator and a filter connection member located in association with the one or more second openings, the filter connection member being structured to sealingly engage the one or more second openings with the plurality of filter units.

An important feature of the invention defined by Claim 1 is that the one or more second openings are adapted to accommodate plural filters at the same time, as shown, for example, in Figs. 6A and 6B and 8A and 8B.

The French '042 document, in Figs. 1 and 2 appears to show a valve that allows air to flow between opening 1 and 3, or between opening 2 and 3, depending upon the position of the valve structure formed therein. However, it is clear that there is no conception of the advantages of attaching more than one filter at a time to the same platform. It appears from the figures that in the French '042 document, the valve is for only connecting one filter at a time, and for blocking the unused filter port from communicating with the mask. Thus, the device does not have the advantages of the device recited in Claim 1, which includes a second opening or openings adapted to accept plural filters.

Palazzotto et al. shows a speech transmission adaptor 50 that goes between the filter 46 and the mask 30. However, it is clear from the description that the adaptor only allows connection of a single filter unit. Thus, the device does not have the advantages of the device recited in Claim 1, which includes a second opening or openings adapted to accept plural filters.

Muller teaches the use of an insert for a gas mask that allows for the easy manufacture of country-specific masks. The mask can utilize different filters depending upon which insert is present, or whether no insert is present. However, while different filters can be accommodated, they can only be accommodated one at a time, and actually, once the manufacturing process is finished, tongue-like catch springs prevent the insert from being changed. Thus, the device does not have the advantages of the device recited in Claim 1, which includes a second opening or openings adapted to accept plural filters.

Claim 3 is directed to a filter unit comprising: a substantially hollow filter pad having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly and integrally engaged to the annular edge member, the annular edge member having an opening for allowing filtered air to pass out of the filter unit, the annular edge member extending around part or all of the periphery of the filter pad, and a connection member located in association with the opening, for connecting the filter unit to a source of suction.

Claim 6 is directed to a filter unit comprising: a substantially hollow filter pad having first and second walls made of filter material and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly and integrally engaged either to each other or to the annular edge member fully or partially, the annular edge member having an opening and means for connecting the filter unit to a respirator or source of suction.

Among other things, the structure defined Claims 3 and 6 advantageously provides the opening to the respirator at an edge of the filter unit. This design allows the full area of the filter walls to be used for filtration, unlike in prior art filter units in which the connector is located in the middle of a filter wall, making unusable a portion of the area of filter material. Further advantageously, the filter pad is sealed at the edges and constitutes an integrally formed filter pad. On the other hand, Schwartz '834 shows a filter pad that is made up of user-replaceable filter pads which are inserted in grooves formed in an annular elastic wall.

The design taught by Schwartz '834 is only loosely held together by the elastic wall, and in fact is designed to be disassembled to replace filter pads. However, this type of structure does not meet modern safety standards for filtration of particulate matter.

On the other hand, the integrally formed filter pads defined in Claims 3 and 6, sealingly engaged with the annular member, perform much better than units held together by elastic. Claims 3 and 6 are therefore believed clearly patentable over Schwartz '834.

Claim 4 includes a filter unit having, inter alia, features as recited in amended Claims 3 and 6 and is believed patentable for reasons similar to those claims. The references other than Schwartz '834 relied upon by the Examiner relate only to the platform recited in the preamble. The deficiencies of Schwartz '834 with respect to the filter unit are not remedied by any of the French '042 patent document, Palazzotto et al., or Muller et al.

Claim 5 relates to a filter device that includes one or more filter units and a filter platform. Each of the one or more filter units recites filter walls sealingly and integrally engaged to the annular edge member. Accordingly, Claim 5 is believed patentable for reasons similar to Claim 4.

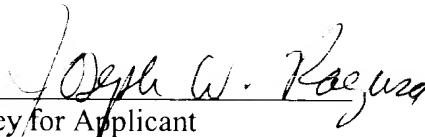
A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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324471 v1 NY_MAIN



Application No. 09/892,765
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MARKED-UP VERSION SHOWING CHANGES MADE TO THE CLAIMS

Claims 1-6 have been amended to read as follows:

1. (Amended) A filter platform for allowing attachment of [an] a plurality of air filter [unit] units thereto, the filter platform comprising:
 - a substantially hollow outer housing, the housing forming a chamber within the platform, the housing having a first opening [at one end] for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and [a] one or more second [opening] openings for engaging the platform with the plurality of air filter [unit] units so as to allow filtered air to flow into the chamber;
 - a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator; and
 - a filter connection member located in association with the one or more second [opening] openings, the filter connection member being structured to sealingly engage the one or more second [opening] openings with the plurality of filter [unit] units.

2. (Amended) A filter platform according to claim 1, wherein the housing has a third opening [at an end of the housing opposite the first opening], the third opening having means for opening and closing the third opening, said third opening being

adapted to selectively receive a sensor or structure for introduction of injectables into the chamber.

3. (Amended) A filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly and integrally engaged to the annular edge member, the annular edge member having an opening for allowing filtered air to pass out of the filter unit, the annular edge member extending around part or all of the periphery of the filter pad, and

a connection member located in association with the opening, for connecting the filter unit to a source of suction.

4. (Amended) A filter unit for filtering air to be fed to a respirator

through a filter platform comprising an outer housing, the housing forming a chamber within the filter platform, the housing having a first opening at one end of the housing for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and a second opening for engaging the platform with the air filter unit so as to allow filtered air to flow into the chamber; a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator; and a filter connection member located in association with the second opening, the filter connection member

being structured to sealingly engage the second opening with the filter unit, the filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly and integrally engaged to the annular edge member, the annular edge member having an opening for engaging the filter unit with the second opening of the filter platform; and

a platform connection member located in association with the opening for engaging, the platform connection member being structured to sealingly engage the filter unit with the filter connection member of the platform.

5. (Amended) A filter device comprising:

(a) one or more filter [unit] units, each comprising:

[a] one or more substantially hollow filter [pad] pads, each having first and second walls made of filter material, and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly and integrally engaged to the annular edge member, the annular edge member having an opening for allowing filtered air to pass out of the filter unit, and

a platform connection member located in association with the opening of each of said one or more plural filter pads for allowing filtered air to pass; and

(b) a filter platform comprising:

a substantially hollow outer housing, the housing forming a chamber within the platform, the housing having a first opening [at one end] of the housing for engaging the platform with a respirator so as to allow air to flow between the chamber and the respirator, and [a] one or more second [opening] openings for engaging the platform with the [air] one or more filter [unit] units so as to allow filtered air to flow into the chamber;

a respirator connection member located in association with the first opening, the respirator connection member being structured to sealingly engage the first opening to an input of the respirator; and

a filter connection member located in association with the one or more second [opening] openings, the filter connection member being structured to sealingly engage the one or more second [opening] openings with the one or more filter [unit] units.

6. (Amended) A filter unit comprising:

a substantially hollow filter pad having first and second walls made of filter material and an annular edge member spacing apart the first and second walls, each of the first and second walls being sealingly and integrally engaged either to each other or to the annular edge member fully or partially, the annular edge member having an opening and means for connecting the filter unit to a respirator or source of suction[, with or without additional or intermediary connecting structure].